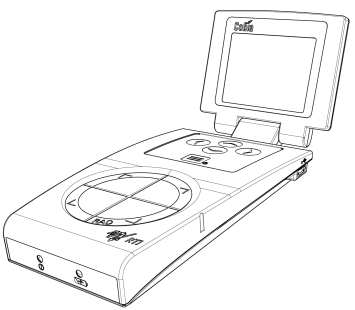
User Manual

Cobia Smart R/F

English - v2.1A



RTI

NOTICE

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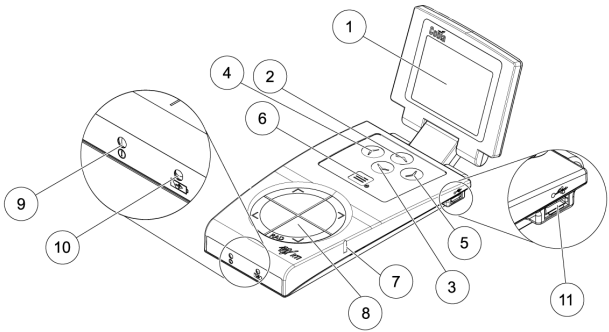
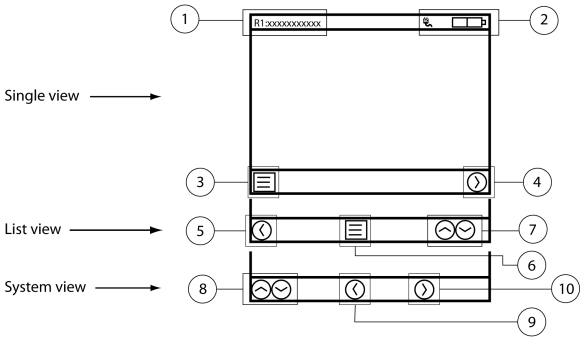
1 Product Overview



No.	Name	Description
1	Display	Cobia Smart R/F display
2	Up button	Move marker up in the list of screen items (change active unit)
3	Down button	Move marker down in the list of screen items (change active unit)
4	Left button	In the List view, go back to Single view
5	Right button	Display the List view
6	Menu button	Start the Cobia Smart R/F and display the menu
7	Positioning indicator	Radiation measurement surface
8	Measurement surface	Entrance surface for the measurement sensors
9	Status indicator	Shows the instrument's status
10	Battery charging indicator	Shows the battery charging status
11	Micro-USB connector	Used to charge the Cobia Smart R/F and to connect to a computer for future firmware updates
12	Reset hole	Used to reset the Cobia Smart R/F. Placed on the back of the instrument (not shown in figure above).

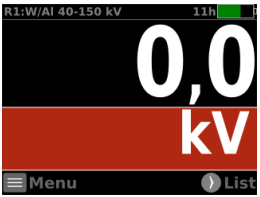
1.1 User Interface

1.1.1 Screen Description

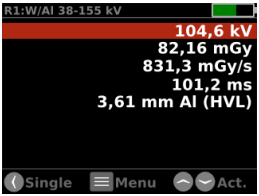


A status field is displayed at the top of the screen. The left side shows the Radiation Quality Code and a description of the active range (1). The right side displays an icon for external power supply and indicator for the battery level (2).

The lower field shows what buttons you can press in the mode you are in, and what the buttons do (3-10).



Single view
In single view, you see only one active parameter value and its unit. Each unit has its own color. You can press the up / down buttons to change the active parameter.



List view
In the List view, all the available parameters are shown. The active parameter is indicated in a color.
Note: The available parameters may vary depending on the model of your Cobia Smart

System view
Displays a menu of functions. Move the marker up and down in the menu and select an item using the right arrow button. Under Settings you can adjust some measurement settings and under Preferences you can adjust your personal preferences.

1.1.2 Keyboard Operation

1

If Power = Off: Press once to start the Cobia.
If Power = On: Press once to display the menu. Press and hold to switch off the Cobia.
Menu: Closes the menu.

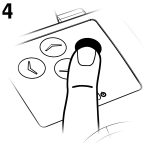
2

Single view: Changes the active parameter shown.
List view: Moves the marker up in the list of parameters on the display.
Menu: Moves the marker up in the list of menu items on the display.

3

Single view: Changes the active parameter shown.
List view: Moves the marker down in the list of parameters on the display.
Menu: Moves the marker down in the list of menu items on the display.

4



In Single view, this button switches the display to List view.
Menu: Activates the marked menu item on the display.
Setting or preferences menu: Changes the set value as displayed in yellow.

5

In List view, this button switches the display back to Single view.
In the Menu, this button switches the display back to the previous menu or screen.

2 Getting Started

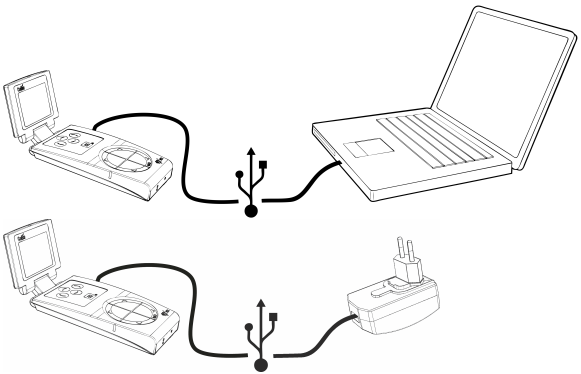
2.1 Starting the Cobia Smart R/F for the First Time

Before you use the Cobia Smart R/F for the first time, please charge the unit for 16 hours. See Charging the Battery.

2.2 Charging the Battery

You can charge the battery in two ways:

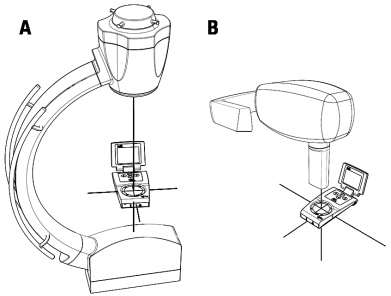
- Via the USB cable connected to a PC.
- Via the USB cable connected to an external charger.



3 How to Measure

3.1 Make a Measurement

The pictures below show different types of X-ray units and how to position the Cobia Smart R/F when measuring.



A = Radiography X-ray unit

B = Dental X-ray unit

1. Start the X-ray unit.
2. Set up the X-ray unit to test its settings.
3. Start the Cobia Smart R/F.
4. Place the Cobia Smart R/F under the X-ray unit at a clinically relevant distance (typically 50 - 100 cm from the source).
5. Start an exposure.
6. When the procedure is over, the Cobia Smart R/F cycles through the measurements on its display. Press the Right button to go to the List view.
7. Compare the parameters displayed by the Cobia Smart R/F with the test settings for the X-ray unit.
8. Record the results.
9. To repeat, start over from Step 5.

4 Maintenance

4.1 Scheduled Calibration

RTI recommends that the Cobia Smart R/F is recalibrated every 24 months. Send your Cobia Smart R/F to your nearest RTI authorized reseller, who will send it to our service department in Mölndal, Sweden, or New Jersey, USA.

4.2 Upgrade the Firmware

Upgrades are performed by the user. You upgrade the firmware or software by downloading the latest versions from www.rti.se/downloads/software/. Instructions can be downloaded from www.rti.se/downloads/.

4.3 Change the Battery

The battery is a special rechargeable RTI battery. The battery can only be changed by RTI authorized service centers.

5 Technical Data

5.1 Battery Charging Time

Capacity	Using power supply	USB, Cobia Smart R/F ON	USB, Cobia Smart R/F OFF
100%	5 h	8.5 h	32 h
90%	3.5 h	7 h	30 h
80%	2.5 h	6 h	27 h
50%	1.5 h	3.5 h	17 h

6 Troubleshooting

If you are experiencing problems with your Cobia Smart R/F, before contacting your reseller or RTI Electronics, please do the following:

A. Check the RTI website for updates http://www.rti.se.

B. Go through the checklist below.

The Cobia Smart R/F indicates a dose lower than anticipated:

If you get too low dose readings or too short irradiation times for short exposures:

Check that you are measuring so that the radiation is perpendicular to the detector surface.

My Cobia Smart R/F beeps twice quickly when starting

The Cobia Smart R/F normally beeps once when starting. If it beeps twice quickly when powering on, run RTI Updater to correct this.

How do I reset the Cobia Smart R/F?

There is a small reset hole on the back of the Cobia Smart R/F, marked RST. Insert the end of a paper clip or similar to reset.

7 Standards and Compliances

For standards and compliances, see the Reference Manual.

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